

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of :  
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Yasushi SAYAMA et al. : Confirmation No.: 4367  
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Serial No. 10/720,488 : Group Art Unit: 3763  
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Filed: November 25, 2003 : Examiner: Melanie Jo HAND  
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For: DISPOSABLE DIAPER

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**REPLY BRIEF UNDER 37 C.F.R. § 41.41**

Appellant hereby files this reply brief to the Examiner's Answer mailed October 26, 2007.

Appellant respectfully traverses all Examiner's arguments indicated in the "Grounds of Rejection" and "Response to Argument" sections of the Examiner's Answer. In the following ARGUMENT section, Appellant will address the Examiner's arguments indicated in the "Response to Argument" section *only*. Any remaining issues are believed to have been sufficiently and adequately treated in the Appeal Brief filed July 9, 2007.

**STATUS OF CLAIMS**

Same as Appeal Brief.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Same as Appeal Brief.

## ARGUMENT

### **A. First Ground of Rejection**

#### *35 U.S.C. 112, first paragraph rejection of claim 4*

##### Claim 4

The Examiner, in response to Appellant's request<sup>1</sup> in the Appeal Brief, has now explained<sup>2</sup> the 35 U.S.C. 112, first paragraph rejection of claim 4 more clearly. Basically, the Examiner alleged that claim 4 is "not enabled by physical science," because "there is no kinetic coefficient of friction of the same material that will simultaneously yield an average kinetic frictional force of 0.5 N or lower under a load of 58.23 g/9 cm<sup>2</sup> and 0.5 N or lower under a load of 340 g/9 cm<sup>2</sup>," i.e., "these ranges do not overlap."<sup>3</sup>

First, Appellant notes that the Examiner has apparently misread the relevant limitation of claim 4. In particular, claim 4 recites an average kinetic frictional force of 0.5 N or higher (rather than "lower") under a load of 58.23 g/9 cm<sup>2</sup>, and 5 N (rather than "0.5N") or lower under a load of 340 g/9 cm<sup>2</sup>.

Second, the relevant limitation of claim 4, when correctly read, does not run counter to physical science, contrary to the Examiner's allegation. Specifically, claim 4, when correctly read, recites

a lower frictional force (0.5N or higher) under a lower load (58.23 g/9 cm<sup>2</sup>), and

a higher frictional force (5N or lower) under a higher load (340 g/9 cm<sup>2</sup>).

A person of ordinary skill in the art would understand that the claimed ranges obey the relevant laws of physics and can be satisfied by the same material.

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<sup>1</sup> Appeal Brief at page 11, lines 4-6.

<sup>2</sup> Examiner's Answer at page 13, the first full paragraph.

<sup>3</sup> Examiner's Answer at page 13, lines 6-9 from bottom.

Third, Appellant notes that the Examiner has not explained why experimentation, if necessary, would be undue, despite Appellant's request in the Appeal Brief.<sup>4</sup>

Reversal of the 35 U.S.C. 112, *first paragraph* rejection of claim 4 in view of the above is now believed appropriate and therefore respectfully requested.

## **B. Second Ground of Rejection**

*35 U.S.C. 103(a) rejection of claims 2-4, 6-11, 13-14, 16, 18-20 as being unpatentable over Kline in view of Sherrod*

### Claims 4, 11 and 13

With respect to claim limitations (i),<sup>5</sup> the Examiner's additional argument is noted.<sup>6</sup> The Examiner's admission<sup>7</sup> that Appellant's interpretation of the *Sherrod* reference is correct is also noted.

Appellant respectfully submits that *Sherrod*, as correctly interpreted by Appellant, does not supply the suggestion or motivation to provide antislip zones on facing surfaces of the article in use. Thus, if a person of ordinary skill in the art wanted to modify *Kline* with *Sherrod*, she would not have arranged the *Sherrod* antislip zones on the facing surfaces of the *Kline* article, and hence, the resulting article would not include the features (i) of claims 4, 11 and 13.

With respect to claim limitations (ii),<sup>8</sup> the Examiner's additional argument is noted.<sup>9</sup> Basically, the Examiner is of the opinion that "once the fibers are coated, they assume the antiskid property, thus *Sherrod* teaches elastic and inelastic fibers that define a fibrous antislip zones as claimed."<sup>10</sup>

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<sup>4</sup> Appeal Brief, at page 11, lines 2-3.

<sup>5</sup> Appeal Brief, at page 12, the second full paragraph.

<sup>6</sup> Examiner's Answer, at the paragraph bridging pages 13-14.

<sup>7</sup> Examiner's Answer, at page 14, line 5.

<sup>8</sup> Appeal Brief, at the paragraph bridging pages 14-15.

<sup>9</sup> Examiner's Answer, at the paragraph bridging pages 13-14.

<sup>10</sup> Examiner's Answer, at the sentence bridging pages 14-15.

Appellant respectfully disagrees, because the claimed antislip zones are clearly defined as parts of the outer surface that are contactable with the wing portions.<sup>11</sup> When the fibers of *Kline/Sherrod* are coated with the coating of *Sherrod*, the fibers cease to define the outer surface and are no longer contactable with the external objects. It is the *Sherrod* coating that is now contactable with the external objects and defines the outer surface of the combined article. Therefore, in the Examiner's suggested combination, the antislip zones are defined solely by the *Sherrod* coating which, as admitted by the Examiner,<sup>12</sup> has no fibrous nature.

#### Claim 4

With respect to the "optimization" argument,<sup>13</sup> the Examiner's additional argument is noted.<sup>14</sup> Basically, it appears to be the Examiner's argument that (a) *Sherrod* is evidence that the art has recognized the coefficient of friction between the *Sherrod* coating and a cotton fabric material as a result effective variable, and that (b) such art-recognized result effective variable is applicable to the *Kline* cotton fibers of "topsheet 24 that constitutes the material of the body-facing surface of the wings 30."<sup>15</sup>

Appellant respectfully disagrees, because the wings 30 are neither disclosed, taught nor suggested by *Kline* to be defined by topsheet 24. Rather, as can be seen from FIG. 1, wings 30 and topsheet 24 are disclosed to be separate/different layers/materials with a clear boundary line<sup>16</sup> therebetween. The wings or side panels 30 are also disclosed by *Kline* to have elasticity<sup>17</sup> which is not disclosed to be a property of topsheet 24. Thus, it would be clear to a person of ordinary skill in the art that wings 30 of *Kline* are not made of the same cotton material of topsheet 24. The alleged *Sherrod* coating/cotton coefficient of friction being an art-recognized

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<sup>11</sup> Claim 4 at lines 14-16, i.e., "said undergarment facing surface ... being provided ... with anti-slip zones each adapted to come in contact with said body facing surface of said wings," and claim 11 at lines 6-8 from bottom and claim 13 at lines 11-14 from bottom, i.e., "antislip zones on the outer surface of said main portion ..., said antislip zones being contactable with predetermined areas of the inner surfaces of the proximal ends of said wing portions."

<sup>12</sup> Examiner's Answer, at page 14, line 3 from bottom.

<sup>13</sup> Appeal Brief, at page 15.

<sup>14</sup> Examiner's Answer, at the paragraph bridging pages 15-16.

<sup>15</sup> Examiner's Answer, at page 16, lines 4-10.

<sup>16</sup> *Kline*, at FIG. 1, the longitudinal line near the arrow of the pointing line associated with 32.

<sup>17</sup> *Kline* at column 6 lines 58-59.

result effective variable would not be applicable to wings 30 of *Kline* which are not made of cotton.

In addition, according to the Examiner, the *Sherrod* coating/cotton frictional forces, and hence frictional coefficients, are very large, namely, 45.29 N under 58.23 g/9cm<sup>2</sup> and 264 N under 58.23 g/9cm<sup>2</sup>,<sup>18</sup> and are well outside the claimed range of 0.5 – 5N. Therefore, there was no reasonable expectation<sup>19</sup> that the combined article of *Kline* and *Sherrod* could be successfully “optimized” to scale-down the *Sherrod* frictional force 50-100 times, from 45-264 N to the claimed range of 0.5-5N.

#### Claim 6

The Examiner has not responded to Appellant’s argument<sup>20</sup> regarding separate patentability of claim 6.

#### Claim 8

With respect to Appellant’s argument<sup>21</sup> regarding the “substantially same melting point” claim feature, the Examiner’s additional argument is noted.<sup>22</sup> Basically, the Examiner alleged that “[i]n order to laminate a melt-blown film to a non-woven fabric layer successfully, the two layers necessarily have fibers with substantially equal melting points...”<sup>23</sup> and therefore *Sherrod necessarily* includes the claim feature.

Appellant respectfully disagrees, because in order to thermally laminate two layers together, only one, not both, of the layers need to be softened or melted. Thus, a person of ordinary skill in the art would understand that the laminate of *Sherrod* does not necessarily include two layers with substantially equal melting points. The reference does not teach the claim feature through inherency.

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<sup>18</sup> Examiner’s Answer, at page 6, lines 9-10.

<sup>19</sup> Obviousness does not require absolute predictability, however, at least some degree of predictability is required. Evidence showing there was no reasonable expectation of success may support a conclusion of nonobviousness. *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976).

<sup>20</sup> Appeal Brief, at page 16, the first four paragraphs.

<sup>21</sup> Appeal Brief, at page 16, the last four paragraphs.

<sup>22</sup> Examiner’s Answer, at the paragraph bridging pages 16-17.

### Claim 11

With respect to Appellant's argument<sup>24</sup> regarding claim 11, the Examiner's additional argument is noted.<sup>25</sup> Basically, the Examiner has, for the first time, clearly stated that the fastening element 40 of *Kline* is the antislip zone.<sup>26</sup> The Examiner's proposed combination of *Kline* and *Sherrod* would then necessarily require a coating, as taught by *Sherrod*, on the fastening element 40 of *Kline*.

Appellant respectfully submits that such combination would render the reference being modified, i.e., *Kline*, inoperable or at least unsatisfactory for its intended purpose.<sup>27</sup> The fastening element 40 of *Kline* includes either adhesives or hooks/loops.<sup>28</sup> A coating as taught by *Sherrod* on the *Kline* adhesive would render the adhesive inoperable. Likewise, a coating as taught by *Sherrod* on the *Kline* hooks/loops would at least render the coated hooks/loops 40 unsatisfactory for their intended purpose of ensuring a reliable engagement between elements 40 and 41 of *Kline*, because the coating material would be trapped in and solidified into a membrane in the middle of each of the coated hook or loop. Such membrane would prevent or at least hinder proper engagement of the coated hook or loop with a matching loop or hook in element 41.

Therefore, the references are not properly combinable in the manner suggested by the Examiner.

### Claim 13

The Examiner has not responded to Appellant's argument<sup>29</sup> regarding separate patentability of claim 13.

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<sup>23</sup> Examiner's Answer, at page 17, lines 5-6.

<sup>24</sup> Appeal Brief, at page 17, the second two paragraphs.

<sup>25</sup> Examiner's Answer, at page 17, the last full paragraph.

<sup>26</sup> Examiner's Answer, at page 17, line 10 from bottom.

<sup>27</sup> If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

<sup>28</sup> *Kline*, at column 8 lines 51-52.

<sup>29</sup> Appeal Brief, at page 17 line 3 from bottom through page 18 line 8.



Claims 16, 19, 20

The Examiner has not responded to Appellant's argument<sup>30</sup> regarding separate patentability of these claims.

Reversal of the 35 U.S.C. 103(a) rejections of claims 2-4, 6-11, 13-14, 16, 18-20 in view of the above is now believed appropriate and therefore respectfully requested.

**C. Third Ground of Rejection**

*35 U.S.C. 103(a) rejection of claims 5, 12, 15, 17, and 21 as being unpatentable over Kline in view of Sherrod and Damberg*

The Examiner has not responded to any of Appellant's arguments<sup>31</sup> regarding these claims.

Reversal of the 35 U.S.C. 103(a) rejections of claims 5, 12, 15, 17, and 21 in view of the above is now believed appropriate and therefore respectfully requested.

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<sup>30</sup> Appeal Brief, at page 18 the last four paragraphs.

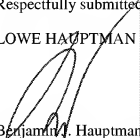
<sup>31</sup> Appeal Brief, at pages 19-21.

Consideration of this reply brief together with the previously submitted Appeal Brief is respectfully requested. Reversal of the Examiner's Final Rejection, in view of the arguments presented in the Appeal Brief and this Reply Brief, is believed appropriate and therefore courteously solicited.

If for any reason this Reply Brief is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned, Appellant's attorney of record.

Respectfully submitted,

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